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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,496	12/18/2003	Cuong V. Nguyen.	19441-0006	1495

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EXAMINER

KAPLAN, HAL IRA

ART UNIT PAPER NUMBER

2836

DATE MAILED: 12/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/707,496	NGUYEN ET AL.	
	Examiner	Art Unit	
	Hal I. Kaplan	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-15, 18 and 22-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8, 10-15 and 31-36 is/are allowed.
- 6) ☒ Claim(s) 22-27 and 30 is/are rejected.
- 7) ☒ Claim(s) 28 and 29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. <u>20061025</u> . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Examiner would like to thank the Applicants for their time and courtesies extended in the telephone interview on October 25, 2006. An Examiner's Amendment to correct the dependency of claim 10 on canceled claim 9 was approved; however, some of the claims were rejected based on prior art.

Drawings

1. The drawings were received on September 21, 2006. These drawings are accepted.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 22 is rejected under 35 U.S.C. 102(e) as being anticipated by the US patent application publication of Worden et al. (2002/0190525).

As to claim 22, Worden, drawn to an inverter controlled, parallel connected asynchronous generator for distributed generation, discloses a power generating system, comprising: a generator (404) including an inverter (406) capable of producing an output waveform having a frequency to power a load (106); and a controller (416) connected to the generator (404) wherein the controller (416) is capable of providing the

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frequency for producing the output waveform and is operative to drift the frequency to substantially match a frequency from a second power source (grid 104) (see paragraph 17, lines 6-16; paragraph 19, lines 2-6; and paragraph 22, line 2).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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7. Claims 23-27 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Worden in view of the US patent of Roesel, Jr. (4,168,459).

As to claim 23, Worden discloses all of the claimed features, as set forth above, except for a sensor. Roesel, Jr., drawn to non-interruptible power supply systems, discloses a sensor (252) connected to a grid (14) and a controller that measures a grid operating condition (see column 17, lines 45-49). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to use a sensor to measure the frequency in the system of Worden because, since the frequency of the generator is matched to the grid frequency, the grid frequency must be measured or detected somehow.

As to claims 24-25, the sensor of Roesel, Jr., can measure grid frequency or voltage (see column 17, lines 45-49).

As to claim 26, Worden discloses a controller operative to disconnect the grid power source (104) from the load (106) if the voltage of the grid power source (104) is outside a range of values (utility grid fails) (see paragraph 4, lines 8-11).

As to claim 27, Roesel, Jr. discloses a mode switch logic device (16) that is operative to disconnect and reconnect a power source based on input from range detectors (252); a frequency range detector (252) that is connected to the mode switch logic device (16) and which determines if the grid frequency is within a range of values; and a frequency adjust loop that is operative to drift the generator frequency to the grid frequency (see column 17, lines 45-60).

As to claim 30, Roesel, Jr. discloses a voltage range detector (252) that is connected to a mode switch logic device (16), wherein the voltage range detector (252) determines if the voltage is outside a range of values (see column 17, lines 45-54).

Allowable Subject Matter

8. Claims 1-8, 10-15, and 31-36 allowed.
9. Claims 28 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
10. The following is an examiner's statement of reasons for allowance:

Claims 1-8, 10-15, and 18 are allowed because none of the prior art of record discloses or suggests the step of reconnecting the first power source to the load when the first value is within the range and while the second power source continues to provide power to the load, in combination with the remaining claimed features

Claims 31-36 are allowed because none of the prior art of record discloses or suggests deliberately attempting to drift the frequency from the second power source away from the frequency from the first power source, in combination with the remaining claimed features.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

11. The following is a statement of reasons for the indication of allowable subject matter:

Claim 28 contains allowable subject matter because none of the prior art of record discloses or suggests the use of a default frequency generator, in combination with the remaining claimed features.

Claim 29 contains allowable subject matter because none of the prior art of record discloses or suggests the use of a grid period stretcher, in combination with the remaining claimed features.

Response to Arguments

12. Applicant's arguments, see Remarks, filed September 21, 2006, with respect to the objections and rejections have been fully considered and are persuasive. The objections and rejections have been withdrawn.

Conclusion


13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The US patent to Maekawa et al. (5,627,737) discloses a similar system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal I. Kaplan whose telephone number is 571-272-8587. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 571-272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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